PAGE: 1

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION *US/08/982,272*

DATE: 01/14/98
TIME: 16:27:27

INPUT SET: S22605.raw

> **This Raw Listing contains the General Information Section and up to the first 5 pages.**

```
 1                                      SEQUENCE LISTING
 2
 3    (1)      General Information:
 4
 5
 6       (i)   APPLICANTS:                  Kipps, Thomas J.
 7                                          Sharma, Sanjai
 8                                          Cantwell, Mark
 9
10
11      (ii)  TITLE OF INVENTION:          NOVEL EXPRESSION VECTORS
12                                          CONTAINING ACCESSORY
13                                          MOLECULE LIGAND GENES AND
14                                          THEIR USE FOR IMMUNO-
15                                          MODULATION AND TREATMENT OF
16                                          MALIGNANCIES
17
18
19     (iii)  NUMBER OF SEQUENCES:         44
20
21
22      (iv)  CORRESPONDENCE ADDRESS:
23
24            (A)   ADDRESSEE:              Lyon & Lyon
25            (B)   STREET:                 633 West Fifth Street
26                                          Suite 4700
27            (C)   CITY:                   Los Angeles
28            (D)   STATE:                  California
29            (E)   COUNTRY:                   U.S.A.
30            (F)   ZIP:                    90071-2066
31
32
33       (v)  COMPUTER READABLE FORM:
34
35            (A)   MEDIUM TYPE:            3.5" Diskette,
36                                          1.44 Mb storage
37            (B)   COMPUTER:               IBM Compatible
38            (C)   OPERATING SYSTEM:       IBM P.C. DOS 5.0
39            (D)   SOFTWARE:               FastSeq Version 2.0
40
41
42
43      (vi)  CURRENT APPLICATION DATA:
44
45            (A)   APPLICATION NUMBER:     To Be Assigned
46            (B)   FILING DATE:
```

INPUT SET: S22605.raw

```
47              (C)  CLASSIFICATION:
48
49
50     (vii)  PRIOR APPLICATION DATA:
51
52              (A)  APPLICATION NUMBER:     60/132145
53              (B)  FILING DATE:            12/9/96
54
55
56    (viii)  ATTORNEY/AGENT INFORMATION:
57
58              (A)  NAME:                    Guise, Jeffrey W.
59              (B)  REGISTRATION NUMBER:     34,613
60              (C)  REFERENCE/DOCKET NUMBER: 231/003
61
62
63      (ix)  TELECOMMUNICATION INFORMATION:
64
65              (A)  TELEPHONE:              (213) 489-1600
66              (B)  TELEFAX:               (213) 955-0440
67              (C)  TELEX:                 67-3510
68
69
70   (2) INFORMATION FOR SEQ ID NO:  1:
71
72       (i) SEQUENCE CHARACTERISTICS:
73
74              (A) LENGTH:         786 base pairs
75              (B) TYPE:           nucleic acid
76              (C) STRANDEDNESS:   single
77              (D) TOPOLOGY:       linear
78
79       (xi) SEQUENCE DESCRIPTION: SEQ ID NO:  1:
80
81   ATGATCGAAA CATACAACCA AACTTCTCCC CGATCTGCGG CCACTGGACT GCCCATCAGC       60
82   ATGAAAATTT TTATGTATTT ACTTACTGTT TTTCTTATCA CCCAGATGAT TGGGTCAGCA      120
83   CTTTTTGCTG TGTATCTTCA TAGAAGGTTG GACAAGATAG AAGATGAAAG GAATCTTCAT      180
84   GAAGATTTTG TATTCATGAA AACGATACAG AGATGCAACA CAGGAGAAAG ATCCTTATCC      240
85   TTACTGAACT GTGAGGAGAT TAAAAGCCAG TTTGAAGGCT TTGTGAAGGA TATAATGTTA      300
86   AACAAAGAGG AGACGAAGAA AGAAAACAGC TTTGAAATGC AAAAAGGTGA TCAGAATCCT      360
87   CAAATTGCGG CACATGTCAT AAGTGAGGCC AGCAGTAAAA CAACATCTGT GTTACAGTGG      420
88   GCTGAAAAAG GATACTACAC CATGAGCAAC AACTTGGTAA CCCTGGAAAA TGGGAAACAG      480
89   CTGACCGTTA AAAGACAAGG ACTCTATTAT ATCTATGCCC AAGTCACCTT CTGTTCCAAT      540
90   CGGGAAGCTT CGAGTCAAGC TCCATTTATA GCCAGCCTCT GCCTAAAGTC CCCCGGTAGA      600
91   TTCGAGAGAA TCTTACTCAG AGCTGCAAAT ACCCACAGTT CCGCCAAACC TTGCGGGCAA      660
92   CAATCCATTC ACTTGGGAGG AGTATTTGAA TTGCAACCAG GTGCTTCGGT GTTTGTCAAT      720
93   GTGACTGATC CAAGCCAAGT GAGCCATGGC ACTGGCTTCA CGTCCTTTGG CTTACTCAAA      780
94   CTCTGA                                                               786
95
96
97
98   (2) INFORMATION FOR SEQ ID NO:  2:
99
```

INPUT SET: S22605.raw

```
100        (i)  SEQUENCE CHARACTERISTICS:
101
102             (A)  LENGTH:        783 base pairs
103             (B)  TYPE:          nucleic acid
104             (C)  STRANDEDNESS:  single
105             (D)  TOPOLOGY:      linear
106
107        (xi)  SEQUENCE DESCRIPTION: SEQ ID NO:  2:
108
109   ATGATAGAAA CATACAGCCA ACCTTCCCCC AGATCCGTGG CAACTGGACT TCCAGCGAGC        60
110   ATGAAGATTT TTATGTATTT ACTTACTGTT TTCCTTATCA CCCAAATGAT TGGATCTGTG       120
111   CTTTTTGCTG TGTATCTTCA TAGAAGATTG GATAAGGTCG AAGAGGAAGT AAAACCTTCAT      180
112   GAAGATTTTG TATTCATAAA AAAGCTAAAG AGATGCAACA AAGGAGAAGG ATCTTTATCC       240
113   TTGCTGAACT GTGAGGAGAT GAGAAGGCAA TTTGAAGACC TTGTCAAGGA TATAACGTTA       300
114   AACAAAGAAG AGAAAAAAGA AAACAGCTTT GAAATGCAAA GAGGTGATGA GGATCCTCAA       360
115   ATTGCAGCAC ACGTTGTAAG CGAAGCCAAC AGTAATGCAG CATCCGTTCT ACAGTGGGCC       420
116   AAGAAAGGAT ATTATACCAT GAAAAGCAAC TTGGTAATGC TTGAAAATGG GAAACAGCTG       480
117   ACGGTTAAAA GAGAAGGACT CTATTATGTC TACACTCAAG TCACCTTCTG CTCTAATCGG       540
118   GAGCCTTCGA GTCAACGCCC ATTCATCGTC GGCCTCTGGC TGAAGCCCAG CATTGGATCT       600
119   GAGAGAATCT TACTCAAGGC GGCAAATACC CACAGTTCCT CCCAGCTTTG CGAGCAGCAG       660
120   TCTGTTCACT TGGGCGGAGT GTTTGAATTA CAAGCTGGTG CTTCTGTGTT TGTCAACGTG       720
121   ACTGAAGCAA GCCAAGTGAT CCACAGAGTT GGCTTCTCAT CTTTTGGCTT ACTCAAACTC       780
122   TGA                                                                    783
123
124
125
126
127   (2)  INFORMATION FOR SEQ ID NO:  3:
128
129        (i)  SEQUENCE CHARACTERISTICS:
130
131             (A)  LENGTH:        783 base pairs
132             (B)  TYPE:          nucleic acid
133             (C)  STRANDEDNESS:  single
134             (D)  TOPOLOGY:      linear
135
136        (xi)  SEQUENCE DESCRIPTION: SEQ ID NO:  3:
137
138   ATGATCGAAA CATACAACCA AACTTCTCCC CGATCTGCGG CCACTGGACT GCCCATCAGC        60
139   ATGAAAATTT TTATGTATTT ACTTACTGTT TTTCTTATCA CCCAGATGAT TGGGTCAGCA       120
140   CTTTTTGCTG TGTATCTTCA TAGAAGATTG GATAAGGTCG AAGAGGAAGT AAAACCTTCAT      180
141   GAAGATTTTG TATTCATAAA AAAGCTAAAG AGATGCAACA AAGGAGAAGG ATCTTTATCC       240
142   TTGCTGAACT GTGAGGAGAT GAGAAGGCAA TTTGAAGACC TTGTCAAGGA TATAACGTTA       300
143   AACAAAGAAG AGAAAAAAGA AAACAGCTTT GAAATGCAAA GAGGTGATGA GGATCCTCAA       360
144   ATTGCAGCAC ACGTTGTAAG CGAAGCCAAC AGTAATGCAG CATCCGTTCT ACAGTGGGCC       420
145   AAGAAAGGAT ATTATACCAT GAAAAGCAAC TTGGTAATGC TTGAAAATGG GAAACAGCTG       480
146   ACGGTTAAAA GAGAAGGACT CTATTATGTC TACACTCAAG TCACCTTCTG CTCTAATCGG       540
147   GAGCCTTCGA GTCAACGCCC ATTCATCGTC GGCCTCTGGC TGAAGCCCAG CATTGGATCT       600
148   GAGAGAATCT TACTCAAGGC GGCAAATACC CACAGTTCCT CCCAGCTTTG CGAGCAGCAG       660
149   TCTGTTCACT TGGGCGGAGT GTTTGAATTA CAAGCTGGTG CTTCTGTGTT TGTCAACGTG       720
150   ACTGAAGCAA GCCAAGTGAT CCACAGAGTT GGCTTCTCAT CTTTTGGCTT ACTCAAACTC       780
151   TGA                                                                    783
152
```

```
153
154
155    (2) INFORMATION FOR SEQ ID NO:  4:
156
157        (i)  SEQUENCE CHARACTERISTICS:
158
159            (A)  LENGTH:          786 base pairs
160            (B)  TYPE:            nucleic acid
161            (C)  STRANDEDNESS:    single
162            (D)  TOPOLOGY:        linear
163
164        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:  4:
165
166    ATGATCGAAA CATACAACCA AACTTCTCCC CGATCTGCGG CCACTGGACT GCCCATCAGC       60
167    ATGAAAATTT TTATGTATTT ACTTACTGTT TTCCTTATCA CCCAAATGAT TGGATCTGTG      120
168    CTTTTTGCTG TGTATCTTCA TAGAAGGTTG GACAAGATAG AAGATGAAAG GAATCTTCAT      180
169    GAAGATTTTG TATTCATGAA AACGATACAG AGATGCAACA CAGGAGAAAG ATCCTTATCC      240
170    TTACTGAACT GTGAGGAGAT TAAAAGCCAG TTTGAAGGCT TTGTGAAGGA TATAATGTTA      300
171    AACAAAGAGG AGACGAAGAA AGAAAACAGC TTTGAAATGC AAAAAGGTGA TCAGAATCCT      360
172    CAAATTGCGG CACATGTCAT AAGTGAGGCC AGCAGTAAAA CAACATCTGT GTTACAGTGG      420
173    GCTGAAAAAG GATACTACAC CATGAGCAAC AACTTGGTAA CCCTGGAAAA TGGGAAACAG      480
174    CTGACCGTTA AAAGACAAGG ACTCTATTAT ATCTATGCCC AAGTCACCTT CTGTTCCAAT      540
175    CGGGAAGCTT CGAGTCAAGC TCCATTTATA GCCAGCCTCT GCCTAAAGTC CCCCGGTAGA      600
176    TTCGAGAGAA TCTTACTCAG AGCTGCAAAT ACCCACAGTT CCGCCAAACC TTGCGGGCAA      660
177    CAATCCATTC ACTTGGGAGG AGTATTTGAA TTGCAACCAG GTGCTTCGGT GTTTGTCAAT      720
178    GTGACTGATC CAAGCCAAGT GAGCCATGGC ACTGGCTTCA CGTCCTTTGG CTTACTCAAA      780
179    CTCTGA                                                                786
180
181
182
183    (2) INFORMATION FOR SEQ ID NO:  5:
184
185        (i)  SEQUENCE CHARACTERISTICS:
186
187            (A)  LENGTH:          783 base pairs
188            (B)  TYPE:            nucleic acid
189            (C)  STRANDEDNESS:    single
190            (D)  TOPOLOGY:        linear
191
192        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:  5:
193
194    ATGATCGAAA CATACAACCA AACTTCTCCC CGATCTGCGG CCACTGGACT GCCCATCAGC       60
195    ATGAAAATTT TTATGTATTT ACTTACTGTT TTCCTTATCA CCCAAATGAT TGGATCTGTG      120
196    CTTTTTGCTG TGTATCTTCA TAGAAGATTG GATAAGGTCG AAGAGGAAGT AAACCTTCAT      180
197    GAAGATTTTG TATTCATAAA AAAGCTAAAG AGATGCAACA AAGGAGAAGG ATCTTTATCC      240
198    TTGCTGAACT GTGAGGAGAT GAGAAGGCAA TTTGAAGACC TTGTCAAGGA TATAACGTTA      300
199    AACAAAGAAG AGAAAAAAGA AAACAGCTTT GAAATGCAAA GAGGTGATGA GGATCCTCAA      360
200    ATTGCAGCAC ACGTTGTAAG CGAAGCCAAC AGTAATGCAG CATCCGTTCT ACAGTGGGCC      420
201    AAGAAAGGAT ATTATACCAT GAAAAGCAAC TTGGTAATGC TTGAAAATGG GAAACAGCTG      480
202    ACGGTTAAAA GAGAAGGACT CTATTATGTC TACACTCAAG TCACCTTCTG CTCTAATCGG      540
203    GAGCCTTCGA GTCAACGCCC ATTCATCGTC GGCCTCTGGC TGAAGCCCAG CATTGGATCT      600
204    GAGAGAATCT TACTCAAGGC GGCAAATACC CACAGTTCCT CCCAGCTTTG CGAGCAGCAG      660
205    TCTGTTCACT TGGGCGGAGT GTTTGAATTA CAAGCTGGTG CTTCTGTGTT TGTCAACGTG      720
```

INPUT SET: S22605.raw

```
206   ACTGAAGCAA GCCAAGTGAT CCACAGAGTT GGCTTCTCAT CTTTTGGCTT ACTCAAACTC      780
207   TGA                                                                    783
208
209
210
211   (2) INFORMATION FOR SEQ ID NO:  6:
212
213       (i) SEQUENCE CHARACTERISTICS:
214
215           (A) LENGTH:        786 base pairs
216           (B) TYPE:          nucleic acid
217           (C) STRANDEDNESS:  single
218           (D) TOPOLOGY:      linear
219
220       (xi) SEQUENCE DESCRIPTION: SEQ ID NO:  6:
221
222   ATGATAGAAA CATACAGCCA ACCTTCCCCC AGATCCGTGG CAACTGGACT TCCAGCGAGC       60
223   ATGAAGATTT TTATGTATTT ACTTACTGTT TTTCTTATCA CCCAGATGAT TGGGTCAGCA      120
224   CTTTTTGCTG TGTATCTTCA TAGAAGGTTG GACAAGATAG AAGATGAAAG GAATCTTCAT      180
225   GAAGATTTTG TATTCATGAA AACGATACAG AGATGCAACA CAGGAGAAAG ATCCTTATCC      240
226   TTACTGAACT GTGAGGAGAT TAAAAGCCAG TTTGAAGGCT TTGTGAAGGA TATAATGTTA      300
227   AACAAAGAGG AGACGAAGAA AGAAAACAGC TTTGAAATGC AAAAAGGTGA TCAGAATCCT      360
228   CAAATTGCGG CACATGTCAT AAGTGAGGCC AGCAGTAAAA CAACATCTGT GTTACAGTGG      420
229   GCTGAAAAAG GATACTACAC CATGAGCAAC AACTTGGTAA CCCTGGAAAA TGGGAAACAG      480
230   CTGACCGTTA AAAGACAAGG ACTCTATTAT ATCTATGCCC AAGTCACCTT CTGTTCCAAT      540
231   CGGGAAGCTT CGAGTCAAGC TCCATTTATA GCCAGCCTCT GCCTAAAGTC CCCCGGTAGA      600
232   TTCGAGAGAA TCTTACTCAG AGCTGCAAAT ACCCACAGTT CCGCCAAACC TTGCGGGCAA      660
233   CAATCCATTC ACTTGGGAGG AGTATTTGAA TTGCAACCAG GTGCTTCGGT GTTTGTCAAT      720
234   GTGACTGATC CAAGCCAAGT GAGCCATGGC ACTGGCTTCA CGTCCTTTGG CTTACTCAAA      780
235   CTCTGA                                                                 786
236
237
238
239
240
241
242
243
244
245   (2) INFORMATION FOR SEQ ID NO:  7:
246
247       (i) SEQUENCE CHARACTERISTICS:
248
249           (A) LENGTH:        786 base pairs
250           (B) TYPE:          nucleic acid
251           (C) STRANDEDNESS:  single
252           (D) TOPOLOGY:      linear
253
254       (xi) SEQUENCE DESCRIPTION: SEQ ID NO:  7:
255
256   ATGATAGAAA CATACAGCCA ACCTTCCCCC AGATCCGTGG CAACTGGACT TCCAGCGAGC       60
257   ATGAAGATTT TTATGTATTT ACTTACTGTT TTCCTTATCA CCCAAATGAT TGGATCTGTG      120
258   CTTTTTGCTG TGTATCTTCA TAGAAGGTTG GACAAGATAG AAGATGAAAG GAATCTTCAT      180
```

SEQUENCE VERIFICATION REPORT
PATENT APPLICATION   *US/08/982,272*

INPUT SET: S22605.raw

Line	Error	Original Text
45	Wrong application Serial Number	(A) APPLICATION NUMBER: To Be Assigned